

## **432 MHz AND ABOVE EME NEWS**

**DECEMBER 1999 VOL 28 #12**

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## **HOLIDAY GREETINGS TO ALL.**

Let me start a tradition and again quote HP3XUG. Warmest holiday greetings to all. May the end year of this millenium, and the start of the next millenium in the next 13 months bring us all much greater EME joys than ever before." This is an example of the many the greetings received with this month's reports, which I have not included to conserve space. It is also an expression of my own

feelings!

## CONDITIONS

I would like to report another terrific contest. Most operators ended the '99 ARRL EME Contest with a few hours less sleep, but with generally good feelings. There were some times when excellent conditions were present. I felt that overall conditions were very good. Unfortunately the contest was marred by extreme weather, which made operation impossible in many parts of Eur and some other areas of the world. If your WX was uncooperative, take heart as there are a number of other EME contests coming up very soon. The NL will again be sponsoring the popular EME SSB Contest or "SSBfest" during the Feb SW, and the Eur WW EME Contest be following in March and April. The rules for both these contests follow later in this NL. There is also the ARI's 1999 Marathon EME Contest announced last year. There is still time to add a few contacts during the Dec SW to finish this contest off with a bang.

**W4HHK A SILENT KEY:** It is with great sadness that I report that Paul, W4HHK died on 29 Nov. He was a true EME pioneer. He was at one end of the 1st 13 cm EME QSO, years before microwave EME became popular. Paul provided the 1st 432 EME signal I ever heard. He was active on 13 cm EME and both a proponent and promoter of 2300 up to his end. He had celebrated his 75th birthday in Sept with his 1st 24 GHz QSO with his son Steve, N4HHK. We have lost a great one.

**2000 SKED WEEKENDS:** It is that time again. The time to decide on the SW dates for the coming year. At the end of this NL is G3SEK's Lunar Calendar with the proposed SWs indicated by "\*\*\*". Ian and I are in agreement on the dates through May. The March SW date is not the same as that of the 1296 portion of the Eur WW Contest, which was chosen for minimum sky noise. [Why must the 1296 portion of the Eur WW Contest be the same weekend as the 144 MHz portion?] In June Ian suggests 10/11 while I selected 3/4. The earlier weekend has only 21 degs of Sun separation. This is close, but past experience shows that we can get by with this little separation. [What do you think? There is still plenty of time for a change.] There are no good dates in early July, so I elected to have a long separation between SWs with the next on 22/23 July. I think the remainder of the year is pretty straight forward.

**HIGH CONTEST SCORES:** On 432 it appears that OH2PO is again the winner with 123x34, followed by K1FO 112x35, DF3RU 103x?, N2IQU 101x36 and DL9KR 100x34. On 1296 K4QI appears number one with 66x34 followed by N2IQU 59x37, OZ4MM 60x28, K2DH 50x28 and SM3AKW 50x26. N2IQU has got to be the multi-band lead (at least 70 cm up) with 160x73 followed by OE5JFL 120x68. I want stress that these results are very preliminary and may not be accurate as the come a variety of sources and do not represent all participants.

**3RD 23 CM EME SSB CONTEST:** This year the SSB contest is scheduled for the 2nd Moon pass of the 12/13 Feb SW, on 1296 only. The contest starts at local moonrise on Saturday 5 Feb, (This is the 2nd moonrise of the SW referenced to Eur, the 1st starts on Friday afternoon local time in most places), and ends on the following moonset on Sunday 13 Feb. Scoring will be contact points times number of Grid Sectors (IO, JM, FN, ...). SSB to SSB contacts will count as 2 points. SSB to CW (or CW to SSB) 1 point. The exchange is your Grid Sector. Operation may be by single or multiple operators. No distinction for scoring will be made. CW only stations are encouraged to participate.

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### DJ5MN

Bernhard writes of his Bavarian 23 cm mini-EME-station (3 m dish, TH327-PA and 0.32 dB NF FHX35LG preamp) -- Nov was a very successful month on 23 cm. On the 20th I worked **PY5ZBU** to complete WAC. Due to a catastrophic accident in the HV PS of my final TH327 PA 10 minutes before of the PY sked, I only could run about 100 W at the feed. But Don has superb ears picking up

even my QRP signal. Then, in the 2nd part of the ARRL EME Contest I added 17 more QSOs to my previous 27. My final result was 44 43x24 (pure random) and 16 initials. Using just a 3 m dish, this is a DREAM. I never expected more than 30 QSOs. The smallest stations worked were **JA4BLC (6 m dish and QRP with 30 W at his feed)**, **G3LQR (4.2 m dish and 150 W in the shack)** and **DF3RU (3 m dish and about 300 W at feed)**. Additionally, I heard some 17 more stations off the moon on 23 cm, which I could not work as they seemed only to answer the CQs of the BIG GUNs or they simply disappeared too fast. I am trying to get skeds with these stations. (During the 2nd leg of the contest I also was able to complete with VK2FLR on 144 EME for a new country and my only QSO on 2 m in the contest). Please note that I cannot take skeds on 2 m or 70 cm at the moment, but I am keenly working on new initials on 23 cm EME. If anybody is interested in a sked with me, please arrange via the 20 m EME net or e-mail to me at:BR> [DJ5MN](#)

#### **DL4KG**

Gerald's latest news on his status -- I have moved to my new house in Stuttgart (JN48OU). The shack is ready, but my antennas are still down. I'm trying hard to get them up as soon as possible. When back on EME, I will have 4 x 29 el BV yagis and 1 kW on 432. Notice will be given when I am QRV again, and I will be glad to give initials to all.

#### **DL4MEA**

Guenter's ARRL-part II story follows: As I had already worked many stations during the 1st part, even more than in both parts last year, I was very interested in what would happen in Nov. By luck SV1BTR loaned me his 70 cm cavity preamp, which is a miracle. (Big thanks to Jimmy). I worked the following stations on 432 (in alphabetical order): **CT1DMK, DF3RU (dup on SSB), DJ3FI (dup), DL1YMK (dup), DL7APV, DL8OBU, EA3DXU (dup), G3HUL, G4ERG, I5TDJ, JA5OVU, JH4JLV (dup), K1ZF, K4AR, K8ISK, KA0RYT, KD4LT, N4GJV (dup), NC1I, OZ4MM (dup on SSB), OZ6OL, PY5ZBU, RW1AW, S51ZO, UA3PTW, UA6LGH, VE6TA, VK4AFL, W1JR, W7GBI, W7SZ, W8MQW, WA4NJP, WB0GGM and WE2Y**. WB0GGM must have been the puzzling callsign of the 1st part. Some stations were peaking 57 on my S-meter. I made my 1st SSB contacts with **DF3RU and OZ4MM**. SSB echoes were like tropo signals. UA3PTW must have heard my SSB CQ because he answered on CW. I made my 5th continent with PY5ZBU after many tries - thanks Don. **VK4AFL** was worked (539) with only 150 W on his side. I observed that often my callsign was read as "DL4GA". I will improve and make a new memory keyer. (my current contains a 2532 EPROM which I am not able to re-program). My final result is 74x30 for 222,000 points.

#### **DL9NDD**

Günther found conditions during the 2nd part of the contest very good on 70 cm, but activity very low! He ended with a score of 108x34 and made the following initials **RV4AQ, K4AR, PA3DZL, KB0VUK, DK0MM, OM1TL, JA8IAD, JR4IUH, DL1DWI, KJ7F and F5KKD**. This brings Gunther to #316 in the 10 years of EME operation. He made his 1st Moon QSO in Nov 1989 with DF3RU. [Congrats to Gunther].

#### **F5HRY**

Herve reports that the club station F5KKD was operated under a number of different calls during the EME contest. The "official" call is F5KKD. Operators and other transmitted calls were F5PMB, F6GYH, F4BRC and F6GPU. Herve tried to explain normal contest procedure to the group. Hopefully this will not cause too much confusion. He was QRV on 432 for the 1st time since 1997. There was lots of local QRM from the radio localization system at Orly Airport. Herve is only 5 km away from it. It is nearly impossible to hear through it. Nevertheless he worked **OH2PO, N9AB, K1FO, DL9KR and K5GW**.

#### **F5PAU**

Francis reports on 1296 during the contest he QSO'd **F1ANH/p** for initial #112, **JA6CZD, EA3UM, JH5LUZ, HB9BBD, OK1DFC, OE5EYM, OZ6OL, ON5RR, DJ5MN #113, S59DCD, DH9FAG, SM3AKW, G3LTF, DF4PV, VE1ALQ, CT1DMK, K3HZO, KD4LT, W3XS, WA9OUU #114,**

OE9ERC, W2UHI, DL0SHF, K5JL, K2UYH, PA3CSG, OH2AXH, N2IQU, DD1XF, OE5JFL, OH2DG, OZ4MM, K2DH, HB9SV, K4QI, VE1ZJ, WA6KBL #115, HB9BHU, VE6TA, F6CGJ, SM2CEW, DF9QX, IK2MMB #116, SV1OE #117 and new dxcc, W0KJY #118, JA8IAD #119, JA8ERE #120, F5AQC, G3LQR, DL4YAO #121, WA9FWD, W5LUA and W4OFS for a total of 54x31, 10 initials and 1 dxcc.

#### G3LTF

Peter had problems during the Nov SW -- Things didn't go so well during the weekend. I wasn't able to be on for the 1st Moon pass at all and missed the 1st 2 hours of the 2nd, so operating time was limited. We had very strong winds although it didn't stop operation on 1296 and 432. Conditions on 432 in the night displayed polarization spreading, but as it turned light this cleared and the signals got stronger. I guess we should expect more of this with the higher Sun activity. I started on 432 and didn't get to change the dish feed to 1296 until quite late in the window, so I missed ZS6AXT and G on that band. On 28 Nov on 432, from 0049 on, I worked ON5OF, 7M2PDT, JH4JLV, UA6LGH, K5WXN, VE6TA, KD4LT, N4GJV (nice chat), EA3DXU, OZ4MM, W7GBI, OH2DG, K5GW and K8ISK for initial #348. Heard were K4AR and KA0RYT, and CWNR were DJ3FI, WW2R, VE1ALQ and IK5WJD. From 0830 onwards I was on 1296 and worked OE9ERC, OZ4MM, F6CGJ, OE5EYM, K2DH, W5LUA and W7QX for #150. CWNR were IK2MMB, HB9BHU and W1ZX. My grand finale was a try at getting back on to 432 for the last hour and forgetting to put the antenna lead on the PA. This vaporized the N connector; it was a little lump of carbon. (I also had the 2 m PA blow out in the middle of the Leonids). The final scores were down on last year with 2x2 on 2320, 45x23 on 432 and 36x20 on 1296. I'm now busy working on new single tube high power PAs for 432 and 144!

#### G4DZU

Doug was active during the Nov contest weekend with his 3 m dish and 700 W, but had problems with gale force winds, which prevented operation much of the time. The winds let up enough on 27 Nov to allow him to work OZ4MM, K5JL, HB9BBD, K2DH, OE5EYM, W2UHI, WA6KBL, OH2AXH and N2IQU.

#### G4RGK

Dave reports -- I wasn't able to get on for the 1st contest weekend at all, I had hoped to be able to spend a lot of time the 2nd weekend operating, but the antenna stayed tied down for most of the weekend. We had everything from torrential rain to howling gales for most of the weekend. I managed to operate for only 3 20- minute periods and worked OZ4MM, OH2PO, DL9KR, OE5JFL, DL9NDD, K5GW and K0RZ, before azimuth backlash became so severe I was unable to hold the antenna on the Moon.

#### GM0ONN

Iain was unable to QRV for the 2nd contest weekend due to 60 mph winds Friday, Saturday, Sunday, Monday and into Tuesday. He apologies to stations looking for him on 70 cm. Everything was ready to operate, but it was impossible to track the Moon. Very heavy rain on Sunday summed the whole weekend up nicely. Iain will try again before too long. He even took days off work to prepare. Please note Iain's new e-mail address at: [Iain, GM0ONN](mailto:Iain.GM0ONN)

#### HP3XUG/HO3A/KG6UH

Louis (using HO3A) had his problems during the Nov contest weekend -- It's obviously time to take my antenna system totally apart and re-furbish it. I couldn't raise DL9KR in over 2 hrs of trying. I did QSO N9AB and later K1FO and OZ4MM. In the morning only K5GW and a couple others were heard. I seem only to get through to big guys, although at times my own echoes weren't too bad. I heard and CWNR many times DL9NDD, DF3RU, DL4ZA, DL9KR, and a few others too. Only 5 QSOs is an all-time low! There was a 5° error in Az, apparently due to recent strong winds. Summer seems to be already here. I'll hold off any major array work until after Dec, to try once more with

AL7OB.

#### I5TDJ

Piero was only able to be active for a few hours during the 2nd part of the ARRL Contest – On Saturday I found good signals on 432 up to my local dawn. Signals then disappeared and the band emptied. I worked **DF3RU, OH2PO, DL9KR, N2IQU, K1FO, DL4MEA, OZ4MM and F5FEN**. CWNr were KD4LT, DL9NDD and JA5OVU, and heard were K4AR, N9AB, PA3CSG, UT5LX and JL1ZCG. On Sunday I was only active after local sunrise and signals were pretty poor. I QSO'd **K5GW and N4GJV**. CWNr were W7GBI, OE5JFL and DL9NDD. My final score is 10x8 for 8000 points! Every year, for one reason or another, my score is steadily diminishing.

#### IK2MMB

Sergio was active for the 1st time off the Moon during the Nov contest -- This was my 1st ever EME contest. I worked non-stop from 1230 to 0030 on Saturday morning (12 hours with one sandwich and 2 beers, only!) My goal was to make at least one QSO. At 0040 I went on the air and heard my echoes for the 1st time ever. I believe all of you can recall this exciting moment. The Confusion in my shack was tremendous. I couldn't find a couple of coax relays that would have allowed me to operate with only one rig. I QSO'd **HB9BBD, F5PAU, HB9SV and OE5EYM** using an IC706 with its internal electronic bug. My CW was terrible with this arrangement, but I couldn't do better. The next day I was set up to work with one rig and the external bug - what a relief. I heard many other stations and worked a number of them. The station consists of a 12' dish with W2IMU feedhorn and TH308 cavity PA with > 600 W out. The dish is mounted on the roof of a condominium, so there is not much room for expansion. I have automatic AZ/EL readout/tracking with F1EHN's system. I had 13.3 dB of Sun noise with solar flux of 151 at 10.7 cm. I have been a microwave operator for quite a long time (started 1979). My equipment is all homebuilt. EME has always been in my heart and head, but till now I did not have space for the antenna. I know very well HB9SV to whom I owe my enthusiasm for EME. I consider him my 'EME Father'. I live one hour by car from his home/station. (If someone needs to e-mail to Enrico, he/she can do it through me. I speak/visit him quite often.)

#### IK5WJD

Alex was active on 432 and 10368 during the contest. On 432 he QSO'd on 31 Oct **K1FO, OZ4MM, DF3RU, OH2PO, N9AB, N2IQU, DL9NDD and DL9KR**, on 27 Nov **KD4LT and K5GW**, and on 28 Nov **NC1I, DK3WG, F5FLN, G3SEK, K0RZ, N4GJV and OE5JFL** for a total of 18x12 or 21,600 points. On 10 GHz Alex operated with I5PPE, Pietro and used the call I5PPE. They made one QSO on 30 Oct with **F6KSX (O/O)**. Heard were S57UUU and IW4BTJ. They missed their sked with VE4MA. Overall on 3 cm they are up to #5 initial, 4 countries, 1 US state and 3 grids.

#### JA6AHB

Toshio reports on 432 in Nov – I worked on 20 Nov **DJ3FI** for initial #51, and on 21 Nov **DL8OBU, UT5EC #52, OZ4MM and DF3RU**. UT3LL was also heard. In the ARRL EME Contest I added on 27 Nov **N2IQU #53, WA4NJP #54, W8MQW #55, VE6TA #56, W7GBI, W7SZ #57, JJ1NNJ #58, F5FLN #59, IK5QLO and DL7APV #60**, and on 28 Nov **W7CNK, JA5OVU, SM3AKW, JA4BLC and OZ6OL**. Heard were S52CW, K4AR, UA6LGH, SK4BX, HO3A, KU3T, KA0RYT, JH0WJF (P), JA2TY and JO3JDI. My final score was 46x24.

#### JJ1NNJ

Kouichi's report for the 2nd part of the EME contest -- I worked on 70 cm on 27 Nov **KD4LT (559/339), N2IQU (579/449), K1FO (559/549), K0RZ (O/O), N9AB (O/M)** for initial #49, **JA5NNS (O/O), JA6AHB (O/M) #50, JL1ZCG (O/O), OH2PO (559/549), DL9KR (579,549) and OZ4MM (O/O)**, and on 28 Nov **OE5JFL (559/439), DF3RU (O/O), DK3WG (O/O), JA5OVU (559/449), K5GW (579/559), DJ6MB (O/529) #51, and ON5OF(O/O) #52** for a total of 18x12. I'm using 16 x 13 el FO pol rotatable yagis, FHX35LG LNA, and 3 x MRF176GU power MOSFET PA with 250 W output. My Sun noise was about 14 dB at noon on 28 Nov. I built a house near my parent's home. I



moved my EME station to this new location in order to gain a better Moon widow to the west. The equipment move was completed on Saturday evening. I was thus very tired during the contest.

#### K0RZ

Bill reports his Nov 432 activity. I QSO'd on 27 Nov **DJ6MB, JA2TY, JA3SGR, JA5OVU, JH0WJF, JH1XUJ, JJ1NNJ, KA0RYT, KD4LT, UA4API, VE6TA, W0KJY, WA4NJP**, and on 28 Nov **CT1DMK, DL7APV, G4ERG, G4RGK, IK5WJD, NC1I, ON5OF, OZ4MM, SM4IVE, UA9FAD, UT3LL, VE1ALQ, W7GBI, WB0GGM** and **WW2R/5**. Initials in Nov were **UA4API** for #275, **JH0WJF** #276, **VE6TA** #277, **JA3SGR** #278, **DL7APV** #279 and **WW2R/5** #280. This is the 3rd call and grid where Dave, WW2R, has been QSO'd on 432 (**G4FRE-JO02, WG3I-FN21** and **WW2R-EM13**). I did not QSO anyone in W3 call area. My final score was 78x30.

#### K1FO

Steve had a great time in the contest. He had no problems or failures, other than his slowly aging body required more sleep than in past years. His contest totals were 112 x 35 for a score of 392,000. He took 4 hours sleep the 1st night, 5 hours the 2nd and 6+ hours on the 3rd and 4th nights. If he had been able to pull a couple of all nighters as in past contests he thinks he could have worked about 12 more stations. It was great to work a number of stations this year that he hadn't heard on in a long time. Some of the calls of old friends on 432 were **DL6WU, OH2DG, PA3DZL, PA0AVS, SM4IVE** and **KB2AH**. Great to hear all of them back on! Steve found conditions good to excellent both weekends. Both weekends there were long periods of straight horizontal to horizontal polarity to both Europe and Japan. Initials worked were **K6KHM #554, KB0VUK #555, K4AR #556, JH0WJF #557, JH0BBE #558, JR4ICH #559, DL1DWI #560, DL4TTU #561** and **KJ7F #562**. The only disappointments in this year's contest were the ones that got away and the stations that didn't get on 432 this year. Steve will have a complete contest report next month after he pulls the data from his logging program. Steve is looking for information (grid square, equipment, power) for the following stations: **KJ7F, DL4TTU, JR4ICH, K6KHM, DJ3FI, JH3OYI, G4BRK, DL1YMK** and **UT3LL**.

#### K3HZO

Harry passes along the following info -- I did not hear anything from 9H1ES during the regular or the backup schedules. I had good echoes and worked 2 initials after the sked time. I should be able to work Fortunato, but I never hear him on skeds. I have heard him on random with the old 3 m dish, but I was unable to work him. I did QSO **I0UGB (539/539)** for initial #73 and my 1st Italian station on 23 cm EME and **W1ZX (529/549)** #74. Also worked in Nov, prior to the 2nd contest weekend, were **OZ6OL, W2UHI, and K5JL**. I scored 28x20 during the 1st weekend of the contest. This was a surprise because last year with the 3 m dish I worked only 30x18 on 2 weekends. I guess it is a result of the larger 4.5 m dish and Darrell's diagonal feed. As I replaced both at the same time I am not sure how to distribute the credit. My average Sun noise is 2.75 dB more with the new dish and feed than the average with the 3 m dish and VE4MA feed. Also I have added a visual tracking system, which has helped very much with the inaccuracies of the pot in the Az rotor on westerly headings. I guess I am good to the west, on clear nights anyway. Need to keep working on this. A few days after the first contest weekend, very high winds twisted the dish on its mounting and broke three mounting bracket welds. When the storm was over, the new dish resembled an HF inverted V with the dish looking at the ground on one side and the cantilever arm a mirror image on the opposite side of the tower. With the help of my son-in-law we built a wooden cradle and scaffold to support the dish in place, while we installed a new, heavier duty mounting bracket and cantilever arm. A major job for 2 people, but its nice to have a son-in-law who owns a welder and can weld! I have learned the hard way just how much sail area there is on a mesh dish this big. Now I need to determine how to avoid having it happen again.

#### K4QI

Russ sends his Nov report on 1296 for 2ns weekend of the EME contest -- I QSO'd on 27 Nov

EA3UM dup, K2DH, KB2AH, DH9FAG dup, JH5LUZ dup, JA8ERE, JA8IAD dup and K5GW, and on 28 Nov ZS6AXT, SM3AKW, W4AD, WA9FWD, KD4LT, OE9ERC, W1QC, WA4OFS, PA3CSG, SV1OE, W7QX, W4TJ, WA4NJP and JF3HUC for a total of 66x34. The only station identified over the weekend and not worked was F6FYE. I have heard better conditions. On the 1st night activity was especially low. One interesting note: on 28 Nov at about 1345 during the beginning of the Asian window with activity being very low, I was calling CQs and getting no response at all until someone came on frequency and sent "LID" just once. Who ever it was didn't have the guts to identify. It would be interested in having that person contact me and let me know just what he thought I was doing wrong. Never been called that before.

#### **K6JEY**

Doug in (DM03) is a new station on EME. The Nov contest weekend was his 1st time on 432 EME. He worked on the 1st Moon pass **K5GW** and **N2IQU** and I heard at least 5 other stations, but not well enough to call. The next night he heard almost nothing. Doug is running 500 W out, a .22 dB NF LNA and 4 x 19 el RIW yagis. He is interested in skeds and improving his system, He can be reached at e-mail .

#### **KB0VUK**

Matt (EN34pk) was QRV for the 1st time during the Nov contest on 432. He used 4 x 27 el FO yagis, 150 W and a RYT preamp. Matt worked 6x5 including **OH3PO (559/559)** and **DL9NDD (559/0)**. CWNr were NC1I, N2IQU, K5GW, DL4MEA, F5FLN and DF3RU (all very loud). He also heard N9AB, KD4LT, DL9KR, G3SEK, OZ4MM, DJ6MB, K2UYH, W7GBI and KA0RYT. Matt's e-mail address is:

[Matt, KB0VUK](#)

#### **KU3T**

Joe writes -- What a strange weekend! On Friday before the contest, I checked out the 432 array on the Sun with the cavity preamp and was copying about 4 S-units of sun noise. So I was pumped for the contest. Friday PM into Saturday AM, I was only able to work **K1FO** and **N2IQU**. Heard K2UYH terrestrial, but not off the Moon. I heard no one else via the Moon. Saturday night was the same except after I turned the amplifier off and called it a night, I heard DL9KR very strong and another DF whose call I couldn't make out. Sunday AM, I heard K1FO and N2IQU again. Called CQ on 432.020 and **JA5OVU** answered me! Copied O's from him. Later I heard and called K5GW to no avail. I definitely need to add more antennas and improve the RX side of the station. I have 1500 W to 4 x FO 25 yagis and a 0.25 dB NF cavity preamp. [You don't need more antenna – a least not until you figure out what's wrong. With your system you should have worked many more stations. Joe's e-mail is at:

[Joe, KU3T](#)

#### **OE5JFL**

Hannes' ARRL Contest report -- I was QRV for about 15 hours all together in both parts of the contest (30% of possible time). Because of QRL on Saturday my time was very limited. I also preferred to have some hours of sleep. To stay up all the night is more difficult now than ten years ago, hi. Anyway, it was fun, and I managed to work 120x68 on 3 bands: 2 m: 19x13, 70 cm: 55x27 and 23 cm: 46x28. The real highlight was a QSO with Jan, **DL9KR**, on 70 cm. After I had worked him in the night with his usual outstanding signal (30 dB in 100Hz bandwidth), I called him again some hours later, but this time transmitting with only a dual- dipole-feed antenna (8dBd/10dBi)! This resulted in a (O/O) random QSO within 5 minutes. Normally I use this antenna (2 stacked dipoles in front of 0.8m x 0.8m mesh reflector) for adjusting preamps. This time I pointed it out of the shack window, TX line 4m H100 cable, HF400 Coax relay and 2SK571 preamp. On receive I could switch between the big dish and the 'baby' antenna. I could hear my echoes at 5 to 7 dB above the noise when receiving with the dish. I adjusted TX frequency to be exactly the same as the station DL9KR just worked. Jan was 30 dB with the dish, and still 10 dB on peaks with the small antenna.

On my 1st answer to his CQ he got FL only, then 2FL (similar to JFL), retuning my TX and a longer call resulted in 100% copy. Jan was not informed before about this test, so it was a real random QSO. There were no tropo conditions between us at the time. Doppler was 1 kHz also, so it was not possible we mixed tropo and EME. It was quite clear before on theory this should work, but it is another step to do it in reality. It was also interesting that I could hear DL9NDD with the small antenna, although not 'O' copy. He is using 4 Yagis, and his signal is audible with a 8 dBd antenna via the moon... quite fascinating! It was a little hectic during this QSO, so I forgot to switch on the tape recorder. I plan to record my echoes to the 10 m dish with the 8 dBd antenna next perigee and upload the WAV files and photos to my web page.

#### OK1CA

Franta sends his report on activity during of 2nd part of the ARRL EME Contest -- I was QRV only on 2.3 GHz on 27 Nov. I worked ZS6AXT (0/M) and OE9ERC (559/449) for initial #4. I heard JA4BLC (449) on 2424, but Yoshiro had trouble with converter to 2304. I am working on a 10 GHz EME rig. I have a 3 m dish, 20 W TWTA and DB6NT transverter with LNA. I plan to be QRV in April or May.

#### OK1DFC

Zdenek writes -- I am sorry to say that in both parts of the contest Mr. Murphy visited my ham shack. 1st in Oct I had problems with a strong aurora. Signals were very weak and Doppler was +500 Hz greater than calculated. On the 2nd night my SWR meter went band and I did not have info about my output power and VSWR. In Nov I had problems with oscillation in my preamplifier. As a result my score was worse than in 98. I ended with 38x26. QSO'd on 1296 were ON5RR (539/549), SM3AKW (559/549), HB9BBD (579/559), F5PAU (559/559), JA6CZD (539/549), OE5EYM (559/439), VE1ALQ (559/449), K2UYH (559/559), OH2AXH (539/549), JH5LUZ (539/549), G3LTF (549/549), OE5JFL (559/559), HB9SV (589/559), DJ5MN (539/O), S59DCD (539/559), VE1ZJ (O/O), CT1DMK (O/O), F6CGJ (559/449), K5JL (559/559), OZ6OL (O/449), W2UHI (559/559), K4QI (559/559), N2IQU (569/549), DF4PV (559/549), SM2CEW (559/559), OH2DG (O/449), EA3UM (O/439), WA6KBL (559/559) for initial #84, VK5MC (O/O), OZ4MM (549/549), ZS6AXT (539/559), KB2AH (559/549), PA3CSG (559/449), K2DH (559/559), W6HD (559/549), W3XS (O/O), OE9ERC (579/559) and K3HZO (O/O).

#### ON4KNG

Peter says -- My final score for the 70 cm ARRL contest (mono operator) is 43x23. My activity was limited as a result of high winds, which moved my antenna. I am sorry for the stations that I lost. For the same reason, Marc, ON5RR was not active on 23 cm this last weekend. My multipliers were DL, N2, OH, PA, K1, K0, OZ, OE, SM, K5, N4, F, N9, JA, G, HA, UA, EA, W7, ON, S52, VE and K8. The initials were OH2DG, DL1YMK, DL7APV and K8UK to bring me to initial #138. Heard were DL6WU, SM3AKW, WW2R, DJ6MB, KD4LT, JA5OVU and a lot of partial calls. I have a 3.2 m dish and only need PA to be QRV on 1296. I am already hearing stations. For more details see my WEB page see:

#### [Peter, ON4KNG](#)

I also have a new e-mail address at: [ON4KNG](#)

#### ON4RR

Marc writes about his 23 cm contest operation -- In the 1st leg of the contest, my famous co-operator ON7EH and I worked 31x21. We CWNH HA5SHF, WD5AGO, W7QX, W7SZ and DD1XF. F1ANH/P was worked partially, but in the last part of the QSO, the HT tripped and the contact was lost. Initials were WA9OUU and W1ZX. In the 2nd leg, we were only active for 4 hours. The WX conditions were really marginal and at one time the dish was blown 90° off of the Moon. We succeeded in working another 6 stations and 2 multipliers, including initials with IK2MMB and NL7F. It was a great contest, a pity for the bad WX in Eur the 2nd weekend.



### **ON5OF**

Dirk's score is 52x24, which is his best ever. Saturday morning propagation was not good, but Saturday/Sunday night was super good - magnificent echoes all the time. Unfortunately Dirk's PA failed on Saturday evening. The bias circuit 3055 went dead. Fortunately Dirk was to switch power off before the tubes were damaged, but he lost lots of time making repairs. [Does anyone have a good bias circuit?] See Dirk's WEB page at:

[Dirk, ON5OF](#) for more info.

### **OZ4MM**

Stig had some winds during the EME weekend but nothing like what followed -- We survived 42 m/s wind speeds during the weekend after the contest. So far it looks like the 10 m dish has come through without damage. Also our house is without damage, although many of the trees in our garden are broken. It will be many years before things look normal here again. Never in more than 100 years have wind speeds been measured so high in Denmark. Almost every house in this area has some damage and many forests are completely destroyed! I went out several times during the night to inspect and secure the dish with the ropes I had put on prior to the hurricane. Hans, OZ6OL seems to have come through the hurricane with minor damage too! Since the last leg of the contest, I repaired the system, and it worked without any problems. On 432 I ended with 91x33, which is less than last year. New initials on 432 were **K4AR (549/549)**, **F5KKD (429/449)**, **DK0MM (429/559)** and **W7SZ (549/55)** to bring me to #193. On 1296 I ended with 60x28 and initials with **WA9OUU (569/559)**, **WA6KBL (569/579)**, **K5GW (539/559)**, **W7QX (429/549)**, **W4AD (539/O)**, **JA8IAD(549/579)** and **IK2MMB(559/579)** for #160. Only Ivo, **ZS6AXT** was worked at 2304. Generally I think activity was a bit weak this year. Many regular stations are missing from my log, but maybe the WX around was part of the reason. Conditions were OK, but not great.

### **PA3DZL**

Jack was QRV during the 2nd part of the EME contest with his QRP station of 2 x 21 el 6.6 lambda yagis on 70 cm. During the weekend he QSO'd **NC1II (539/539)** and **DL9NDD (O/O)**. Heard were OZ4MM, ON5OF, DF3RU, F5FLN, K1FO, DL9KR, N9AB, G3SEK and OH2PO. Jack also notes that in his last report he neglected to mention his QSO with OZ4MM for initial #121.

### **PY5ZBU**

Don writes regarding EME2000 -- We have received a few side comments about the cost of accommodation in Rio de Janeiro in spite of the large hotel discounts made available for the EME 2000 Event. It is not at all necessary to use the Conference Place Hotel as the hotel for your overnight accommodation. There are many hotels offering much lower prices and each and every visitor must "Tailor" his own requirements in accordance with his pocket book. The other hotels listed on the web page have been personally visited and verified by both myself and Cleide in order not to list an accommodation, which we would consider to be inferior, however, there are literally scores of small hotels available. We need "Input" from all potential conference participants because our "Crystal Ball" does not function so well down here South of the Equator. Based upon your opinions there is still time to look for, who knows, a possible alternate out of town location. Please communicate with us by e-mail:

[EME2000](#)

or fax: 55-41-341-1504 or letter address: Av. Juscelino K. de Oliveira, 11.400 - Cic - 81450-900 - Curitiba Pr.

### **RW3BP**

Sergei (KO85ws) is now QRV on 13 cm -- On 25 Nov I realized my 1st (M/M) EME QSO on 13 cm. Many thanks to Al, W5LUA for my 1st contacts on 3 cm, 6 cm and now 13 cm with him! (All are firsts from RA and the former USSR). I now have completed EME contacts on 4 bands with a single 1.65 m dish - hi. In the ARRL Contest only one easy (O/O) QSO with **Erich QE9ERC** on 13 cm was completed. I heard but did not complete with **ZS6AXT** - because of high winds at Ivo's place. A sked

with OZ4MM was also cancelled for the same reason. The main problem was to get power on 2424 MHz. I used an old Russian GS9B tube. It is similar to the well-known GI7B. The maximum power was 200 W when transmitting high speed "eeeeee's" (25% duty). For normal CW it was limited to 130-140 W with 2400 V and 24% efficiency. Really it is over limit with power dropping to 110 W toward the end of a "dash". The rig was the 1.65 m offset dish, IMU horn with CP, 140 W from water cooled GS9B and NE324 preamp. Az limits are from 207 degs to moonset, and El no more than 42 degs.

#### S57UUU

Marko reports of his 10 GHz EME activity -- I had a sked with AA5C for the 2nd contest Sunday. At 0600 S53WW came by and we started with some smoke signals coming out of equipment! We SWITCHED everything OFF! After some panic, I found out that the + terminal of my 12 V supply was in contact with the chassis and that there was a current path over the protective earth terminals and the PTT circuit. Luckily, only a wire got burnt. I should have long ago replaced my monster 12 V 50 A supply with something smaller. We worked WA7CJO and AA5C. At about 0910 we heard a weak signal with very slow keying, but it disappeared before we could identify it. And no response was heard to our QRZs. We quit around 1030, when our echoes sunk into the 'tree noise'. It would be great, if OM's could specify the times when they will be QRV (or were so) in their reports to the NL. With the few QSOs that can be done on microwave EME, most stations don't stay on for the whole Moon pass, especially if it is a cold winter night. For example, it seems that most EU stations don't start before Moon rise in the USA.

#### SM3AKW

Carl reports on his contest experience -- In the 1st leg I was on for the 1st 24 hours after which I was sick in bed for 36 hours with a "flu" brought to me by one of my grand children Hi. The 2nd leg was stormy with a 2.5 hour loss of power. I also wasted quite some time the 1st night on 13 cm with nil results. I heard only ZS6AXT and OE9ERC. 432 was very poor the 1st night. I changed to the 23 cm feed on Saturday and had a good time there with a lot of activity and strong signals. I QSO'd on 29/30 Oct on 1296 at 0006 JA6CZD (569/559), 0013 HB9BBD (579/579) and 0027 OK1DFC (549/559), then QSY to 432 at 0044 DK3WG, 0106 OE5EYM (559/559), 0015 F5FLN (559/559), 0117 OZ4MM (559/559) and 0132 G3SEK (559/559), QSY back to 1296 at 0154 JH5LUZ (569/579), 0230 S59DCD (549/539), 0245 OZ6OL (549/549) and 0256 F5PAU (569/559), then back to 432 at 0322 OH2PO (579/569) and 0328 RW1AW (539/539), back to 1296 at 0344 ON5RR (549/529), 0348 VE1ALQ (559/549), 0357 G3LTF (549/559), 0400 DH9FAG (549/539) and 0404 EA3UM (559/559), to 432 again at 0419 HA1YA (549/559), 0423 DL9KR (579/579), 0436 PA3CSG (559/549), 0441 DL4MEA (559/559), 0448 N2IQU (579/569), 0450 K1FO (569/559) and 0457 DF3RU (549/449), QSY to 1296 at 0516 HA5SHF (549/559), 0540 CT1DMK (549/549), 0603 KD4LT (569/559), 0610 DL0SHF (56/54) on SSB and 0645 K3HZO (539/539), QSY to 432 at 0705 W7CNK (549/549), 0711 N9AB (559/559), 0715 SM2CEW (569/569) and 0717 K0RZ (559/549), then back to 1296 at 0804 K5JL (589/569) and 0812 K2UYH (559/559), back on 432 at 0835 K5GW (O/O), 1007 N4GJV (559/559), 1019 K5WXN (559/559), 1041 G3LTF (559/559), 2028 JL1ZCG (559/559), 2040 RA3LE (439/439), 2104 AL7OB (449/439), 2211 OH2DG (549/559), 2246 DL9NDD (559/559); on 30 Oct on 1296 at 0417 OH2AXH (579/579) and 0425 HB9SV (579/569); on 27/28 Nov on 432 at 0048 JA5NNS (559/559), 0108 OE3JPC (O/O) and an initial (#), 0245 NC1I (569/559), 0426 EA3DXU (439/439), 0432 DJ6MB (559/559), 0613 VE6TA (449/449), 0634 G3HUL (439/449), 0751 W7GBI (569/559), 0835 KA0RYT (O/O) and 1042 K2UYH (549/559), QSY 1296 at 2353 OE9ERC (579/569), 0003 OH2DG (439/559), 0013 DF3RU (549/559), 0027 DJ5MN (549/559), 0124 OE5EYM (559/559), 0133 OE5JFL (579/569), 0136 DL4YAO (559/559) (#), 0140 ZS6AXT (559/569), 0144 G3LQR (559/559), 0205 F5AQC (549/529), 0437 HB9BCD (539/529) (#), 0443 K4QI (549/559), 0445 W2UHI (569/559) 0448 K2DH (559/569), 0450 VE1ZJ (549/559), 0537 N2IQU (579/559), 0607 W1QC (559/339) (#), 0620 WA4OFS (449/449), 0635 OZ4MM (579/569), 0640 W3XS (449/449), 0647 WD5AGO (439/559), 0655 WA9OUU (559/559) (#), 0708 W6HD (569/569), 0753 PA3CSG (559/559), 0804 W5LUA (559/559), 0842 DD1XF (559/559), 0852 W7SZ (O/O) and 0904 F6CGJ (449/549), back to 432 at 2108 JA5OVU

(559/559), 2135 UA9FAD (O/O), 2146 OZ6OL (549/559), 2210 JA6AHB (559/559), 2221 JA4BLC (559/549), 2239 DL6WU (549/449) and 2300 ON5OF (559/559), back to 1296 at 2327 F1ANH (559/449). My apology to the JA's that I just couldn't read on 432 during the last hours of the contest in spite of several QRZs. I distinguished at least 3 callers. My total was 50x26 on 1296 and 44x23 on 432. I also made a few QSOs on 144.

#### VE6TA

Grant (DO33 – new grid) operated exclusively on 432 for the 2nd leg of the contest -- I really tried to tempt Murphy with a new rotatable feed and a new amplifier, but everything held together for both Moon passes. The body of the operator is a little worse for wear though, Hi! I managed to work the following: N2IQU, DF3RU, OH2PO for an initial #31, DL9KR, DL4MEA #32, N4GJV #33, DL9NDD, KD4LT, K5GW #34, SM3AKW #35, PA3CSG #36, HA1YA #37, F5FLN #38, N9AB #39, OZ4MM, K2UYH, W7CNK, W7GBI #40, K5WXN #41, JL1ZCG #42, K1FO, JA5OVU, JH4JLV #43, K0RZ #44, JA6AHB #45, UA9FAD #46, NC1I, G3LTF, W7SZ, DJ6MB #47, F5FEN #48 and ON4KNG #49, KA0RYT, ON5OF #50, K8ISK #51, OE5JFL, G3SEK #52 and 7M2PDT. I ended with a total of 38x20 on 432 and from last month 17x12 on 1296, or on all bands 55x32 for 176000 points. I am pretty happy with my results despite operating only 3 Moon passes. My congratulations go to the DL and JA boys who really mustered huge signals on 432.

#### VK3UM

Doug is back from the hospital and doing much better. I returned home from the hospital yesterday, and won't be climbing any towers for a little while! It is frustrating to look at the 10 m dish outside, basically awaiting the feed system. I will get back to it as soon as possible. I am now totally retired. Bev and the "Vet" have ordered me not to leave the shack, etc. This can't last for long! Thanks to all those that phoned called, etc. I am embarrassed by all the attention. Thanks so much. "I will return" (to EME) soon. [Note Doug's new home e-mail address is : [Doug.VK3UM](mailto:Doug.VK3UM) .

#### W2WD

Warren is planning to do some portable EME. As a test he borrowed my 20' stress dish, refurbished it and set it up on a polar mount in his backyard during the 2nd leg of the EME contest. Unfortunately his progress was slowed by rain the week before the contest and during the 1st Moon pass. The rain let up a little on Saturday. He put the feed in place, but did not have time for system checks/adjustments. He just fired up on 432 and let fly raising DL9KR on his 1st call. Warren ended up working DL9KR, OE5JFL, DF3RU and F5FEN. He CWN'd DL9NDD and OH2PO. Also heard were DJ6MB and OZ4MM. Warren's e-mail address is: [Warren.W2WD](mailto:Warren.W2WD)

#### W7GBI

Charlie is now on e-mail at: [Charlie.W7GBI](mailto:Charlie.W7GBI) -- I haven't written for some time and don't want everyone to wonder what became of me. I have been plugging along working on getting a 3.7 m dish up for 6 cm and 3 cm EME. Things go slow for me and I get impatient with the slow progress. The installation, a la G3SEK, should go into the ground this month and hopefully operational in Jan. I missed the 1st part of the contest due to a recurring problem with the elevation drive on my big dish. I stripped the gears in the motor drive and put in my spare, which also stripped as I prepared to get on for the contest. I finally got it fixed for the 2nd session and made 40 contacts on 432 with 5 initials. It was great to work my old friends again. I did not work the other bands as I have various problems with the rigs that will take more time to fix. I plan to make it to Brazil and am looking forward to seeing lots of the EME gang there.

#### W7QX

Jerry was active on 23 cm in the contest and end with a score of 14x13. He initially had PA problems, but worked OZ4MM, K5JL, K2DH and HB9SV running only 50 W. Later he added PA3CSG, OE9ERC, W5LUA, G3LTF, N2IQU, K4QI and W6HD. He heard W1ZX, ON5RR and K3HZO.

#### WA6KBL

Jeff was active on 1296 the 1st night of the Nov contest weekend. He QSO'd 9 new stations - **OZ4MM, K2DH, W2UHI, WA9OUU, DJ5MN, DK5MV, G4DZU, DH9FAG and HB9SV**. Unfortunately the 2nd day his YL1050 arced and burned out the screen supply, and he was not on at all. Jeff plans over the next month to replace this with a G3SEK Tetrode Board.

#### WD5AGO

Tommy corrects the report that appeared in the last NL. The stations listed as being worked on 23 cm were the ones he CWN'd. He worked 7 other stations in Oct (**F5PAU, VE1ALQ, KD4LT, K4QI, VE6TA, HB9BBD and OE5JFL**). Tommy did not do so well on 5.7 GHz in the contest. He made no QSOs. He reports a friend has a 4.5 m dish with a better surface and that he may try 6 cm from this location.

#### ZS6AXT

Ivo had good luck on 6 cm and now holds the EME distance record with W7CNK -- After a change of pol to horiz of my 6 cm horn, the Moon noise dropped to 0.7 dB (1.1 dB before with vertical) and the sidelobes in EI went up to 0.25 dB. I could not find anything wrong, so I went ahead with my skeds and it worked! On 20 Nov I worked **VE1ALQ (549/439)** for initial #4 the 1st 1st Africa/NA QSO on 6 cm. This was followed by **VE4MA (M/M)** #5. During both of these QSOs I did not have visible Moon, so I used only Moon noise for tracking. On 22 Nov I added **W5LUA (539/439)** #6 - very easy QSO and **W7CNK (O/O)** #7. I had very short window with Lucky due to obstructions on his side - only 15 minutes. During both of these QSOs I had visible Moon. The last QSO is a new world distance record, some 14760 km on 6 cm. During the contest I was on 13 cm, but only **OK1CA, G3LQR and OZ4MM** were worked. I missed **SM3AKW**, who heard me, then it became overcast and for my sked with **RW3BP**. I did not have accurate tracking. Sergej heard me briefly, while I did not hear him. So I switched to 6 cm only to find that my preamplifier did not work. Probably the result of a recent thunderstorm. On Sunday I started on 23 cm and worked **HB9BBD, OH2DG, OZ6OL, OH2AXH, JH5LUZ, OE5JFL, OE9ERC, JA6CZD, DJ5MN, IK2MMB** for initial #146, **S59DCD, OZ4MM, EA3UM, HB9SV, OE5EYM, JA4BLC, G3LQR, DL4YAO** #147, **SM3AKW, DH9FAG, F5AQC, HA5SHF, K3HZO, VE1ZJ, N2IQU, W2UHI, K4QI, K2DH, K5JL, KB2AH, W3XS, WA9OUU** #148, **W5LUA, F6HYE** #149, **W6HD and K2UYH**. With few exceptions all stations had good signals with some really booming. Personally I think that 500 W should be a reasonable maximum for 23 cm. Those stations who do not hear well should get better preamps! CWN'd were **OK1DFC, SV1OE, WD5AGO, PA3CSG and W1QC** (many times). I was mostly calling CQ and at one moment I had a real pile-up of W stations! My 200 Hz AF filter sorted that out well. After being disappointed on 6 cm and the low activity on 13 cm, at least I made 4 initials on 23 cm. Conditions were good, with my echoes being up to (569) on both 23 and 13 cm. This is good for my 200 W on 23 cm and some 130 W on 13 cm. However, I must say that I really miss the microwave EME Contest! I hope that there will be one next year, besides the REF/DUBUS Contest. My EME standing have not changed on 70 cm, but on 23 cm I am up to initial #145 in 31 countries, on 13 cm #30 in 16 countries and on 6 cm #7 in 5 countries.

#### K2UYH

I found activity and conditions good during the Nov part of the contest. I again had a conflict with family activities (a wedding), which limited my operating time. I was not assisted this month by **KC2TA** who was out of town. As it was raining heavy on Friday I started operation on 432 and QSO'd at 0558 **K5GW (579/579)**, 0617 **PA3CSG (449/59)**, 0635 **DJ6MB (559/549)**, 0702 **K5WXN (549/449)**, 0711 **KA0RYT (559/559)**, 0721 **VE1ALQ (569/559)**, 0737 **DL8OBU (549/449)**, 0747 **SM4IVE (549/O)**, 0823 **G3HUL (559/549)**, 0831 **ON4KNG (559/559)**, 0844 **ON5OF (559/549)**, 0851 **F1CH (559/O)** for initial #619, 0858 **OZ4MM (559/559)**, 0907 **W7GBI (579/569)**, 0920 **VE6TA (559/559)**, 0947 **WB0GGM (449/559)**, 0955 **DL3EGA (O/O)**, 1022 **SM3AKW (559/549)**, 1257 **JA1ZCG (559/559)**, 1326 **7M2PDT (559/559)**, 1335 **JA5NNS (O/O)** and 1412 **W7CI (559/559)**. On Saturday the WX cleared and I switched to 1296 and contacted at 0657 **KB2AH (579/559)**, 0705

OZ4MM (579/559), 0717 ZS6AXT (559/579), 0727 W3XS (549/569), 0732 K2DH (569/569), 0741 0E9ERC (579/569), 0747 WA4OFS (549/449), 0828 HB9SV (579/569), 0833 EA3UM (569/569), 0853 HB9BHU (569/559), 0923 OE9JFL (579/569), 0945 IK1MMB (559/559) for initial #171, 0952 W5LUA (569/559), 1350 JA6CZD (559/559), 1417 WA4NJP and 1435 JH5LUZ (559/559). I end with 44x25 on 432 and 42x25 on 1296. My QSO in Oct at 0811 with DL4GA should have been listed as with DL4MEA.

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## NETNEWS

G4RGK, DAVID DIBLEY

**OH2PO's** score on 70 cm was 123x34.

**W6TE** is the new call of WA6YDI. He is coming on 432 with 8 x M2 yagis and a LA-70B amp.

**KL7HFQ's** father is very ill in southern Oregon. This has caused Roger to QRT his EME activity. It is not clear when he will be able to be QRV. Let's pray that all turns out well and Roger is back on the Moon soon.

**W2UHI** heard nil from 9H1ES on 23 cm, but worked K5JL, K9BCT, W4AD, K3HZO and W7SZ. Frank is measuring 18 dB of Sun noise and about 0.2 dB of Moon noise. He finds from Cassiopeia "A", the Moon, the Sun and CS/G noise measurements that Sun noise can be a bit misleading.

**K5JL** also heard nil from 9H1ES and K9ZZH, but worked W4AD. Jay reports that SV0OE was QRV on 23 cm during the contest.

**NU7Z** is operational again and looking for skeds on 5.7 GHz with a 4 m dish and 130 W.

**KA0RYT** was on 70 cm and reports 23x15 QSOs in the contest with 2 initials (ON5OF and F5FLN). VE6TA was later worked and he heard RW1AW and K5WXN.

**K5WXN** was on 70 cm and worked DJ3FI and RW1AW for initials. Signals were very good, but he did not hear anything from the JA window. He scored 44x21 with 6 initials.

**W4AD** thanks W2UHI and K5JL for contest QSOs.

**K2DH's** was on for most of the contest weekend, but his activity was shortened by a blown plate bypass. Despite the problem Dave worked 50x28 including 5 initials with IK2MMB, W1QC, WA6KBL, W7QX and W4AD.

**W7CNK** worked OK1KIR and LX1DB on 5.7 GHz, and reports very little activity on 70 cm.

**DL9KR** added initials with K4AR, F5KKD and F5PMB. He was called by JH0WJF, but he disappeared before a QSO could be completed. Jan's score was 100x34.

**9H1ES** reports in skeds nil from K3HZO, but he did hear W7SZ.

**F5SDD** used F1CH as their EME call in the contest, but had trouble with water in a cable. They report only 4 QSOs on 70 cm - KD4LT, K2UYH, G3SEK and N21QU.

**PA3CSG** reports nil in 70 cm skeds from RV4AQ and UA3PTW.

**K4AR's** grid is EM76vc.



**F5FLN** added initials during the Nov contest weekend on 432 with VE6TA, WE2Y and KA0RYT. He heard nil in skeds from UA4API and RV4AQ. Michel ended with 66x26.

**CT1DMK** plans to stay on 70 cm until the spring.

**KD4LT's** preliminary contest score is on 70 cm 36x21 with 6 initials to bring him to #330, and on 23 cm 30x23 with 7 initials for #89.

**W7SZ** scored 40x32 overall with 16x13 on 23 cm and 23x18 on 70 cm. He had 6 initials on 23 cm and 20 initials on 70 cm including VE6TA for #23.

**N2IQU's** preliminary score is 101x36 on 70 cm and 59x27 on 23 cm.

**N4GJV** heard but did not work JH0WJF.

**WW2R** worked 12x? on 432 and comments that K0RZ is the 5th station to work him from 3 different grids.

**AA5C** on 3 cm QSO'd WA7CJO and S57UUU for a score of 2x2. He thought VE4MA was calling, but could not pull him out of the noise.

**W4RDI** was on 23 cm for only the 1st night in Nov and worked a few.

**WA8WZG** was not QRV on EME in Nov.

**DF3RU** worked 103x? on 70 cm and 9x? on 23 cm.

**DK3WG** ended with 50x24 on 70 cm.

**9H1PA** is presently not QRV on 70 cm.

**DL7APV** had antenna problems in Oct and only made 2 contacts on 70 cm, but did much better in Nov with 25 contacts.

**SM4IVE** worked 11x8 on 432 and heard many more using 4 small yagis in Nov. Lars says operating is much different then with a big dish!

**ON4ANT** is looking for info on 70 cm cavity amps preferably using a GS23b or similar Russian tube. He can be reached at e-mail at .

**K0YW** is building up a 23 cm EME station.

**WA9FWD** was QRV in Nov on 23 cm and made 8 contacts in the contest. He heard W1QC.

**WA1JOF** is looking for info on 23 cm power combiners. His N6CA combiners are not working correctly.

**RW1AW** had initials on 70 cm with YO2IS, N4GJV, K5WXN, NC1I, G4ERG, DJ6MB, HA1YA and IZ5EME for 25 QSOs on 432.

**UA4API** confirms QSOs on 70 cm with K0RZ, N9AB, F5FLN and DL7APV for 13 QSOs on 432.

**UA9FAD** connected on 70 cm with EA3DXU, W6TE and VE6TA for 10x8 on 432.

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## FOR SALE

K1FO's **line of Lunar-Link Systems power amplifiers are still available.** You can check out the Lunar-Link Systems web site at:

[Lunar Link](#)

Lunar-Link also now **stocks both Eimac and Svetlana 3CPX800A7 tubes.** Lunar-Link Systems **has printed circuit boards available for HV dc power supplies similar to what is used in the PS-70 power supplies.** Steve also has an **Icom IC-471H, 100 watt output 144 MHz transceiver for sale.** He can be reached at 203-421-3377.

W1ZX has for Sale **a General Radio 1236 30 MHz IF Amplifier for US\$150+s, General Radio 1216A 30 MHz IF Amplifier for \$US60+s, MFJ-784 Super DSP filter for \$US130+s, HP 415E SWR Meter (brown unit -later build) for \$US85+s, and Noise Com Noise Diodes NC305 in glass package for \$US33+s, in flat package \$US42+s.** Call Willie at 301-645-5584 between 2000- 2300 EST, FAX 301-645-6853, 24 hrs, e-mail to:

[Willie, W1ZX](#)

K6JEY is interested in **buying 4 x 25el K1FO yagis.** Doug can be reached at e-mail:

[K6JEY](#)

K2DH has **2304 equipment for sale; SSB xvtr, STM 2000 and a UEK 2000, (2 boxes instead of 3) with a 2 m IF, and a 20 dB HP directional coupler.**

N7ERJ is **looking for 30lhx yagis.** Mark's grid is DN17.

DL4MEA: is **looking for a manual for a HP5335A frequency counter including the 1.3 GHz option.**

WA9FWD has some **test equipment for sale -... HP-141T/8554 spectrum analyzers, HP-432A power meter, HP-415D SWR meter, 7-11 GHz Polorad Model 1108 signal generator, GR-1236 and nuvistors.**

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## FULL MOON NOTE

This year see the first full moon to occur on the winter solstice, Dec. 22, commonly called the first day of winter, in many years. Since a full moon on the winter solstice occurred in conjunction with a lunar perigee (point in the moon's orbit that is closest to Earth) The moon will appear about 14% larger than it does at apogee (the point in it's elliptical orbit that is farthest from the Earth) since the Earth is also several million miles closer to the sun at this time of the year than in the summer, sunlight striking the moon is about 7% stronger making it brighter. also, this will be the closest perigee of the Moon of the year since the moon's orbit is constantly deforming. If the weather is clear and there is a snow cover where you live, it is believed that even car headlights will be superfluous.

On December 21st. 1866 the Lakota Sioux took advantage of this combination of occurrences and staged a devastating retaliatory ambush on soldiers in the Wyoming Territory. In layman's terms it will be a super bright full moon, much more than the usual AND it hasn't happened this way for 133 years! Our ancestors 133 years ago saw this. Our descendants 100 or so years from now will see this again. (TNX K1FO)

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# FINAL

It hard to end this NL on a positive note with the news of the recent passing of W4HHK and the memory of the other members of the EME community we have lost this year. I do know that all of them would want us to go on. In other aspects 1999 was a great year. Activity on the microwave bands continues to build. 6 cm has particularly grown in popularity and has come into it own. New stations are showing up on 70 cm and 1296. Activity on both these bands continues to grow. EME2000 in Brazil is getting close and promises to be spectacular, although Don is getting concerned about participation. Please let Don know about you plans – see PY5ZBU's report. He also urges you to get your technical material for the conference digest in as soon as possible. The very best seasons greeting and a Happy New Year to all.

73, Al - K2UYH



SKEDS:

25 DEC

Time	432.040	432.045	1296.060
0300z	K4AR -DK3WG		
0330z	N4GJV -RV4AQ		
0400z	W7EME -DK3WG		
0430z	N7LQ -DK3WG		
0500z	AL7OB -DK3WG		
0530z	K2UYH -UA3PTW		
0600z	K5WXN -EA3DXU	AL7OB -W7SZ	
0630z	KBOVUK-DF3RU	W7SZ -EA3DXU	
0700z	AL7OB -N4GJV	PY5ZBU-EA3DXU	
0730z	AL7OB -W8MQW	EA3DXU-DL1YMK	
0800z		EA3DXU-IK5WJD	
0830z	K2UYH -GM0ONN		
0900z	K4AR -K2UYH		
1230z	JH0WJF-N4GJV		
1730z	JA6AHB-VK2BE		
2230z	UA4API-JA6AHB	EA3DXU-JA2TY	DJ5MN -JF3HUC
2300z	G4ERG -JA6AHB		

26 DEC

Time	432.040	1296.050	1296.060
0000z	CT1DMK-F5FLN		
0400z			WA9OUU-DJ5MN
0430z			VE6TA -DJ5MN
0500z	K6IBY -DK3WG		DJ5MN -I5MPK
0530z			DJ5MN -IK2MMB
0630z		W5LUA -IK2MMB	
0700z		W5LUA -IOUGB	
0800z		WA1JOF-K2UYH	
1300z		W5LUA -W1QC	
1400z		JF3HUC-W5LUA	

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 Sponsored by the Italian Radio Amateur Association - ARI  
 SECTIONS: OM and SWL, portable or fixed station.  
 DATE/TIME: from 0000z January 1st, 1999 to 2400z December 31st, 1999.

	Frequency	Category
VHF 50 MHz		
SWL 50 "		
VHF 144 "	1A)	QRO (erp pwr equal or more than 100 KW).
VHF 144 "	2A)	QRP (erp pwr below 100 Kw or 1 to 4 antennas).
SWL 144 "	3A)	
UHF 432 "	1B)	QRO ( >50 DBW ERP)
UHF 432 "	2B)	QRP ( <50 DBW ERP)
SWL 432 "	3B)	
SHF 1296 "	1C)	QRO ( >60 DBW ERP)
SHF 1296 "	2C)	QRP ( <60 DBW ERP)
SWL 1296 "	3C)	
SHF 2304 "		
SWL 2304 "		
SHF 5760 "		
SWL 5760 "		
SHF 10450 "		
SWL 10450 "		

(If you don't SPECIFY the category you will be assigned to the QRO category)

VALID QSOs: 2way EME CW/SSB (The same station cannot be worked more than once per day).

SWL: in this category are admitted also OM stations (licensed radio amateurs) but only SWL and not transmitting.

EXCHANGE: callsignes and RST or TMO.

SCORING: 100 points per QSO multiplied by the total number of DXCC countries PLUS 1 (your country is valid for the computation).

EXAMPLE: 20 QSOs and 5 DXCC countries + 1 means 12000 points.

$(20 \times 100) \times (5 + 1) = 12000$

PRIZES: The first 3 OM and SWL of each band and category.

ENTRIES: postmarked no later than January 31st, 2000 to: IWOBET GIOVANNI ZANGARA, P.O. BOX 36, 00100 ROMA CENTRO, ITALIA; E-mail:

[IWOBET](mailto:iw0bet@ik0usa.ilaz.ita.eu)

or Packet iw0bet@ik0usa.ilaz.ita.eu.

#### Lunar Weekend Calendar for 2000 by G3SEK

At 2400 Sat/ 0000 Sun	Declination (deg)	Signals (dB)	Sun offset (deg)	Sky temp (K, 432MHz)	Comments
Jan-01/02	-12.7	-0.7	-52	29	Moon in south.
Jan-08/09	-17.8	-0.6	+25	20	Moon in south.
** Jan-15/16	11.0	0.8	+108	24	Day(PM).
Jan-22/23	14.5	0.5	-155	13	Night.
Jan-29/30	-15.0	-0.8	-72	29	Moon in south.
Feb-05/06	-15.8	-0.5	+5	20	Moon in south.
** Feb-12/13	14.0	0.8	+90	24	Day(PM).
Feb-19/20	12.2	0.4	-175	14	Night.
Feb-26/27	-17.0	-0.8	-92	39	Moon in south.
Mar-04/05	-13.6	-0.4	-15	17	Moon in south.
** Mar-11/12	16.8	0.9	+73	27	Day(PM).
Mar-18/19	9.6	0.3	+164	15	Night.
Mar-25/26	-18.7	-0.9	-112	39	Moon in south.

Apr-01/02	-11.3	-0.4	-34	17	Moon in south.
** Apr-08/09	19.2	0.9	+56	27	Day (PM).
Apr-15/16	6.5	0.2	+146	15	Night.
Apr-22/23	-20.2	-0.9	-131	166	Moon in south.
Apr-29/30	-8.9	-0.3	-54	19	Moon in south.
** May-06/07	20.7	1.0	+39	35	Day (PM).
May-13/14	3.0	0.1	+129	21	Night.
May-20/21	-21.2	-0.9	-150	149	Moon in south.
May-27/28	-6.2	-0.2	-73	19	Moon in south.
** Jun-03/04	21.6	1.0	+21	29	Sun noise.
Jun-10/11	-0.5	0.0	+113	20	Moon in south.
Jun-17/18	-21.7	-0.9	-168	149	Moon in south.
Jun-24/25	-3.2	-0.1	-91	20	Moon in south.
Jul-01/02	21.7	1.0	+3	29	Sun noise.
Jul-08/09	-3.9	-0.1	+96	20	Moon in south.
Jul-15/16	-21.6	-0.9	+174	41	Moon in south.
** Jul-22/23	0.2	0.0	-108	19	Day (AM).
Jul-29/30	21.4	1.0	-16	20	Sun noise.
Aug-05/06	-7.2	-0.2	+78	23	Moon in south.
Aug-12/13	-21.1	-0.9	+156	41	Moon in south.
Aug-19/20	4.0	0.1	-125	20	Night.
** Aug-26/27	20.6	1.0	-34	14	Day (AM).
Sep-02/03	-10.2	-0.3	+59	26	Moon in south.
Sep-09/10	-20.1	-0.9	+137	24	Moon in south.
Sep-16/17	7.7	0.2	-141	22	Night.
** Sep-23/24	19.2	0.9	-51	14	Day (AM).
Oct-00/01	-12.9	-0.3	+40	29	Moon in south.
Oct-07/08	-18.8	-0.9	+118	20	Moon in south.
Oct-14/15	11.2	0.3	-159	24	Night.
** Oct-21/22	17.1	0.9	-68	13	Day (AM).
Oct-28/29	-15.4	-0.4	+20	29	Moon in south.
Nov-04/05	-17.3	-0.8	+98	20	Moon in south.
Nov-11/12	14.0	0.4	-176	24	Night.
** Nov-18/19	14.3	0.8	-85	14	Day (AM).
Nov-25/26	-17.6	-0.5	+3	39	Moon in south.
Dec-02/03	-15.3	-0.8	+77	17	Moon in south.
** Dec-09/10	16.4	0.5	+161	24	Night.
Dec-16/17	11.1	0.8	-103	14	Day (AM).
Dec-23/24	-19.6	-0.6	-19	39	Moon in south.
Dec-30/31	-12.9	-0.8	+57	17	Moon in south.

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#### EUROPEAN WORLDWIDE EME CONTEST 2000 - Sponsored by REF and DUBUS

The EU WW EME contest is intended to encourage worldwide activity on moonbounce. Multipliers are DXCC countries plus \*\*\* ALL W/VK/VE STATES \*\*\* This gives equal chances for stations from North America, Europe and Oceania. The rules reward random QSOs, but do not penalize skeds on 2.3GHz or above.

##### 1. Contest Dates & Periods

The contest happens during two full weekends: 144 and 1296MHz on the MARCH weekend, and 432MHz, 2300MHz and above on the APRIL weekend. Each weekend of the contest begins at 00:00 UTC on Saturday and ends at 24:00 UTC on Sunday.

##### 2. Bands and dates

First weekend: 144MHz and 1296MHz 18/19 MARCH 2000

Second weekend: 432MHz, 2300MHz and above 08/09 APRIL 2000

Note - only 3 weeks between the two weekends!

18/19 March is chosen particularly for low sky noise on 144MHz.

08/09 April is chosen for perigee and longer operating time.



### 3. Sections

QRP	144MHz	<100kW EIRP
	432MHz	<400kW EIRP
	1296MHz	<600kW EIRP
	>= 2300MHz	no separate QRP/QRO categories

QRO        On 144, 432 and 1296MHz, stations with EIRP equal to or greater than stated above.

PRO        Non-amateur equipment or antenna. PRO stations will have scores listed separately.

There are no separate multi-operator classes. Multi-operator and QRO stations will be highlighted in the general classifications.

### 4. Exchange

Callsigns + TMO/RST + R.

### 5. Scoring

100 points for each random QSO completed.

10 (ten) points for each sked QSO completed on bands below 2.3GHz.

100 points for each sked QSO completed on 2.3GHz or higher bands.

### 6. Multipliers

Each DXCC country (except W/VE/VK), or EACH INDIVIDUAL STATE worked in W/VE/VK.

Multipliers count only if worked by RANDOM (except on 2.3GHz or above).

States and provinces can be determined after the contest using address lists in recent Newsletters or in DUBUS.

### 7. Total scores

Single band entries: sum of points multiplied by sum of multipliers. There will be one QRP winner and one QRO winner on each band.

Multiband entries: (Total sum of points on all bands) \* (total sum of multipliers on all bands)

There will be one QRP multiband winner and one QRO multiband winner.

Multiband stations will also be listed as an entry on each separate band worked, and can also win single-band awards.

### 10. Reporting

Copy of the log for each band with details of points, multipliers and total points.

The following information MUST also be included for each band:

1. Output power, transmit cable loss, antenna type and gain.

2. Working category: QRO/QRP - /multi operator

3. Name(s) of all operators

4. Locator/State.

Other information is welcome: Comments, conditions, grid locator, other station details, photographs, etc...

### 11. Awards

A certificate will be sent to each entry. All QRP/QRO band winners and QRP/QRO multiband winners will receive a trophy. In each section, the highest-scoring station in the southern hemisphere will receive a special certificate.

### 12. Logs

Log entries MUST be postmarked no later than 30 days after the end of the second weekend (i.e. in the mail or e-mail by 9 MAY 2000), to the following address: (DO \*NOT\* SEND LOGS TO G3SEK, THE OLD DUBUS POST AND E-MAIL ADD.)

Joachim Kraft, DL8HCZ, EME Contest, Gruetzmuehlenweg 23, 22339 Hamburg, Germany

You can also e-mail your log directly to: [DUBUS](mailto:DUBUS)

All e-mail entries will be acknowledged within one week.

### 13. Referee

Responsible for rules and general questions is: Ian White, G3SEK, 52 Abingdon Rd,  
Drayton, Abingdon,  
Oxon OX14 4HP, England (Tel.: (+44)1235-531559,

E-Mail: [Ian, G3SEK](#)

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**[Most recent Schedules from Klaus, DL4EBY](#)**

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**[Lunar Calendar for 1999 prepared by G3SEK](#)**

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**[Netnotes by K1RQG](#)**

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**[Leave Contest Info or Comments to Allen Here](#)**

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